WHAT IS CLAIMED IS:

1. A process of manufacturing a polysaccharide containing material having at least one desired structural, chemical, physical, electrical and/or mechanical property, the method comprising the step of contacting polysaccharide structures of the polysaccharide containing material with a polysaccharide binding domain containing composition before, during and/or after processing said polysaccharide structures into the polysaccharide containing material, thereby manufacturing the polysaccharide containing material having the desired structural, chemical, physical, electrical and/or mechanical property.

2. The process of claim 1, wherein contacting said polysaccharide structures of the polysaccharide containing material with said polysaccharide binding domain containing composition is effected before processing said polysaccharide structures into the polysaccharide containing material.

3. The process of claim 1, wherein contacting said polysaccharide structures of the polysaccharide containing material with said polysaccharide binding domain containing composition is effected during processing said polysaccharide structures into the polysaccharide containing material.

4. The process of claim 1, wherein contacting said polysaccharide structures of the polysaccharide containing material with said polysaccharide binding domain containing composition is effected after processing said polysaccharide structures into the polysaccharide containing material.

5. The process of claim 1, wherein said polysaccharide containing material is selected from the group consisting of a paper, a textile, a yarn and a fiber.

6. The process of claim 1, wherein said structural property is selected from the group consisting of a predetermined level of cross-links between polysaccharide structures of said polysaccharide containing material, a predtermined aggregation of the polysaccharide structures of said polysaccharide containing material and a predetermined surface texture of the polysaccharide containing material.

7. The process of claim 1, wherein said chemical property is selected from the group consisting of a predetermined hydrophobicity, a predetermined hydrophylicity, a predetermined wet-ability, a predetermined chemical reactivity, a

predetermined photochemical reactivity, a predetermined functionality and a predetermined surface tension.

8. The process of claim 1, wherein said physical property is selected from the group consisting of a predetermined Young's modulus, a predetermined strain at maximum load, a predetermined energy to break point, a predetermined water absorbency, a predetermined swellability and a predetermined toughness.

9. The process of claim 1, wherein said electrical property is selected from the group consisting of a predetermined surface charge and a predetermined electrical conductivity.

10. The process of claim 1, wherein said mechanical property is selected from the group consisting of a predetermined tensile strength, a predetermined resistance to shear, a predetermined abrasion resistance, a predetermined frictional coefficient, a predetermined elasticity and a predetermined wet strength.

11. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and at least one additional polysaccharide binding domain covalently coupled thereto.

12. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and another protein covalently coupled thereto.

13. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a hydrophobic group covalently coupled thereto.

14. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a hydrophilic group covalently coupled thereto.

15. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a biological moiety covalently coupled thereto.

16. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an enzyme covalently coupled thereto.

17. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an chemical reactive group covalently coupled thereto.

18. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an chemical photoreactive group covalently coupled thereto.

19. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a lipase covalently coupled thereto.

20. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a lacase covalently coupled thereto.

21. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a protein A-antibody covalently coupled thereto.

22. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a peptide covalently coupled thereto.

23. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a polypeptide covalently coupled thereto.

24. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a hydrocarbon or a hydrocarbon derivative covalently coupled thereto.

25. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a fatty acid derivative covalently coupled thereto.

26. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an electrically charged moiety covalently coupled thereto.

27. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an ionic moiety covalently coupled thereto.

28. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a silicon binding moiety covalently coupled thereto.

29. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a polymer binding moiety covalently coupled thereto.

30. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a metal covalently coupled thereto.

31. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a metallothionein-like protein covalently coupled thereto.

32. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and ferritin covalently coupled thereto.

33. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a metal binding moiety covalently coupled thereto.

34. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a bacterial siderophores covalently coupled thereto.

35. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a metallothionein covalently coupled thereto.

36. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a thiol group covalently coupled thereto.

37. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an aldehyde covalently coupled thereto.

38. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a maleimide covalently coupled thereto.

39. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a hydrazide covalently coupled thereto.

40. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an epoxide covalently coupled thereto.

41. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a carbodiimide covalently coupled thereto.

42. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a phenylazide covalently coupled thereto.

43. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain which is a cellulose binding domain.

44. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain which is a starch binding domain.

45. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain capable of binding to cellulose.

46. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain capable of binding to starch.

47. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain capable of binding to chitin.

48. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain which is a glucan-binding domain.

49. The process of claim 1, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain which includes *streptococcal* glucan-binding repeats.

50. A composition-of-matter comprising:

a polysaccharide containing material including polysaccharide structures; and

a polysaccharide binding domain containing composition being bound to said polysaccharide structures of said polysaccharide containing material, providing said polysaccharide containing material with at least one desired structural, chemical, physical, electrical and/or mechanical property.

51. The composition-of-matter of claim 50, wherein said polysaccharide containing material is selected from the group consisting of a paper, a textile, a yarn and a fiber.

52. The composition-of-matter of claim 50, wherein said structural property is selected from the group consisting of a predetermined level of cross-links between polysaccharide structures of said polysaccharide containing material, a predtermined aggregation of the polysaccharide structures of said polysaccharide containing material and a predetermined surface texture of the polysaccharide containing material.

53. The composition-of-matter of claim 50, wherein said chemical property is selected from the group consisting of a predetermined hydrophobicity, a predetermined hydrophylicity, a predetermined wet-ability, a predetermined chemical reactivity, a predetermined photochemical reactivity, a predetermined functionality and a predetermined surface tension.

54. The composition-of-matter of claim 50, wherein said physical property is selected from the group consisting of a predetermined Young's modulus, a predetermined strain at maximum load, a predetermined energy to break point, a predetermined water absorbency, a predetermined swellability and a predetermined toughness.

55. The composition-of-matter of claim 50, wherein said electrical property is selected from the group consisting of a predetermined surface charge and a predetermined electrical conductivity.

56. The composition-of-matter of claim 50, wherein said mechanical property is selected from the group consisting of a predetermined tensile strength, a predetermined resistance to shear, a predetermined abrasion resistance, a predetermined frictional coefficient, a predetermined elasticity and a predetermined wet strength.

57. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and at least one additional polysaccharide binding domain covalently coupled thereto.

58. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and another protein covalently coupled thereto.

59. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a hydrophobic group covalently coupled thereto.

60. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a hydrophilic group covalently coupled thereto.

61. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a biological moiety covalently coupled thereto.

62. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an enzyme covalently coupled thereto.

63. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an chemical reactive group covalently coupled thereto.

64. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an chemical photoreactive group covalently coupled thereto.

65. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a lipase covalently coupled thereto.

66. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a lacase covalently coupled thereto.

67. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a protein A-antibody covalently coupled thereto.

68. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a peptide covalently coupled thereto.

69. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a polypeptide covalently coupled thereto.

70. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a hydrocarbon or a hydrocarbon derivative covalently coupled thereto.

71. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a fatty acid derivative covalently coupled thereto.

72. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an electrically charged moiety covalently coupled thereto.

73. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an ionic moiety covalently coupled thereto.

74. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a silicon binding moiety covalently coupled thereto.

75. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a polymer binding moiety covalently coupled thereto.

76. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a metal covalently coupled thereto.

77. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a metallothionein-like protein covalently coupled thereto.

78. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and ferritin covalently coupled thereto.

79. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a metal binding moiety covalently coupled thereto.

80. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a bacterial siderophores covalently coupled thereto.

81. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a metallothionein covalently coupled thereto.

82. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a thiol group covalently coupled thereto.

83. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an aldehyde covalently coupled thereto.

84. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a maleimide covalently coupled thereto.

85. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a hydrazide covalently coupled thereto.

86. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and an epoxide covalently coupled thereto.

87. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a carbodiimide covalently coupled thereto.

88. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain and a phenylazide covalently coupled thereto.

89. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain which is a cellulose binding domain.

90. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain which is a starch binding domain.

91. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain capable of binding to cellulose.

92. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain capable of binding to starch.

93. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain capable of binding to chitin.

94. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain which is a glucan-binding domain.

95. The composition-of-matter of claim 50, wherein said polysaccharide binding domain containing composition includes a polysaccharide binding domain which includes *streptococcal* glucan-binding repeats.

96. A composition-of-matter comprising:

a polysaccharide containing material including polysaccharide structures; and

a polysaccharide binding domain containing composition being bound to said polysaccharide structures of said polysaccharide containing material, said polysaccharide binding domain containing composition including at least two covalently coupled polysaccharide binding domains forming a polysaccharide binding domain coupler cross linking said polysaccharide structures of said polysaccharide containing material.

97. A composition-of-matter comprising:

a polysaccharide containing material including polysaccharide structures; and

a polysaccharide binding domain containing composition being bound to said polysaccharide structures of said polysaccharide containing material, said polysaccharide binding domain containing composition including at least one polysaccharide binding domain and a functionalizing moiety being covalently coupled thereto, said at least one polysaccharide binding domain attaching said functionalizing moiety to said polysaccharide structures of said polysaccharide containing material.

98. A composition-of-matter comprising:

a polysaccharide containing material including polysaccharide structures; and

a polysaccharide binding domain containing composition being bound to said polysaccharide structures of said polysaccharide containing material, said polysaccharide binding domain containing composition including at least one polysaccharide binding domain and a hydrophobic moiety being covalently coupled thereto, said at least one polysaccharide binding domain attaching said hydrophobic moiety to said polysaccharide structures of said polysaccharide containing material.

99. A composition-of-matter comprising:

a polysaccharide containing material including polysaccharide structures; and

a polysaccharide binding domain containing composition being bound to said polysaccharide structures of said polysaccharide containing material, said polysaccharide binding domain containing composition including at least one polysaccharide binding domain and a hydrophilic moiety being covalently coupled

thereto, said at least one polysaccharide binding domain attaching said hydrophilic moiety to said polysaccharide structures of said polysaccharide containing material.

100. A composition-of-matter comprising:

a polysaccharide containing material including polysaccharide structures; and

a polysaccharide binding domain containing composition being bound to said polysaccharide structures of said polysaccharide containing material, said polysaccharide binding domain containing composition including at least one polysaccharide binding domain and a chemical reactive moiety being covalently coupled thereto, said at least one polysaccharide binding domain attaching said chemical reactive moiety to said polysaccharide structures of said polysaccharide containing material.

101. A composition-of-matter comprising:

a polysaccharide containing material including polysaccharide structures; and

a polysaccharide binding domain containing composition being bound to said polysaccharide structures of said polysaccharide containing material, said polysaccharide binding domain containing composition including at least one polysaccharide binding domain and a photo-chemical reactive moiety being covalently coupled thereto, said at least one polysaccharide binding domain attaching said photo-chemical reactive moiety to said polysaccharide structures of said polysaccharide containing material.

102. A composition-of-matter comprising a polysaccharide binding domain coupler including at least two covalently coupled polysaccharide binding domains.

103. A nucleic acid construct comprising a polynucleotide encoding a fusion protein including at least two polysaccharide binding domains.

104. The nucleic acid construct of claim 103, further comprising at least one additional polynucleotide encoding at least one linker peptide coupling said at least two polysaccharide binding domains.

105. A process of manufacturing a polysaccharide containing material having at least one desired structural, chemical, physical, electrical and/or mechanical property, the method comprising the step of contacting polysaccharide structures of the polysaccharide containing material with a polysaccharide binding domain, during and/or after processing said polysaccharide structures into the polysaccharide

containing material, and thereafter covalently coupling at least one moiety or group to said polysaccharide binding domain, thereby manufacturing the polysaccharide containing material having the desired structural, chemical, physical, electrical and/or mechanical property.